

Correspondence
Item No. 2b
Newport Banning Ranch
PA2008-114

June 18, 2012

Mr. Patrick Alford, Planning Manager
Community Development
City of Newport Beach
3300 Newport Blvd.
Newport Beach, CA 92663



Dear Patrick,

An environmental consulting firm, Synectecology Inc., was engaged to conduct a review of the Newport Banning Ranch draft environmental impact report (DEIR) with a focus on air quality and noise. Please see enclosed report and resume for Mr. Todd Brody, Principal.

Mr. Brody's report reveals major discrepancies and defects in the Newport Banning Ranch DEIR. This is important information that needs to be carefully reviewed. Based on Mr. Brody's report, it would be in the best interest of the City and the public that the City rejects the Newport Banning Ranch DEIR. These discrepancies and defects need to be addressed in a revised environmental impact report, and re-circulated for public review.

Please incorporate these materials in the City's official proceedings related to the Newport Banning Ranch project and its successors.

Respectfully submitted,

A handwritten signature in cursive script that reads "Dorothy Kraus".

Dorothy Kraus
10 Wild Goose Court
Newport Beach, CA 92663

Attachments

Cc: Honorable Mayor Nancy Gardner and Members of the Newport Beach City Council
Chairman Michael Lee Toerge, City of Newport Beach Planning Commission
Newport Crest HOA Board of Directors

April 26, 2012

Due Diligence Review of the Banning Ranch Project DEIR

To Whom It May Concern:

Recognizing that the average citizen has neither the background nor technical expertise to adequately review the myriad of disciplines included in an Environmental Impact Report, Dorothy Kraus hired Synectecology to provide due diligence review of the noted project with emphasis on air quality and noise.

By way of introduction, Synectecology has been providing environmental consulting services since 1994. It's Principal, Todd Brody, has been working in the Environmental Consulting field since 1978 and Mr. Brody has prepared well over 600 environmental documents to date. Mr. Brody prepared air quality and/or noise analyses for several of these projects in the City of Newport Beach including, Dredging and Habitat Restoration of the Newport Back Bay, Improvements to Buck Gulley, The Realignment of Irvine Avenue, Mariner's Mile, Bay Island Sand Retention Wall and Bridge Refurbishment, Fletcher Jones Mercedes Benz, St. Marks Presbyterian Church, Olsen Homes Conversion from Industrial to Multi-Family Residential, and the Aerie Residential Project. Other relevant proximate projects include the restoration and development of the Bolsa Chica Wetlands area, improvements to the UCI Campus, and the proposed stadium at University High School. I've included my resume with this submittal.

With respect to air quality, we find that in many cases the air quality analysis extends construction well beyond the dates included in the project description thereby avoiding the indication of the potential impacts that are likely to ensue. We also find that the air quality analysis uses trip rates that differ from those provided in the Traffic Appendix thereby underestimating the number of daily trips and those emissions related to this travel.

With respect to the air quality modeling, we find that the Applicant bases the human health risk assessment and greenhouse gas emissions for the oilfield operations on the outdated URBEMIS model, but bases the construction and operation of the project on the current CalEEMod model. As we show through comment, the models use different parameters and defaults and predict different results that are not compatible. Furthermore, the health risk analysis overestimates the area for consolidated oil operations thereby underestimating the emissions concentrations and health risks associated with these operations. This is especially disturbing because human health risk should receive as high a priority as criteria pollutants, which may or may not manifest themselves miles downwind.

We also find that the Applicant does not adhere to the SCAQMD guidance for Localized Significance Threshold for construction emissions (or greenhouse gas emissions for that matter) leading to a claim of no significant impact where in fact using the correct methodology, one does exist. The analysis is also deficient in that it does not address the Localized Significance Thresholds for the operation of the consolidated oilfields with respect to the proximate existing and proposed land uses.

Finally, we find that much of the analysis is undocumented and because no input files are provided and only limited information was provided as to the construction and operation

parameters used in the model, the analysis is not replicable by an independent third party and these data will need to be provided prior to final review.

With respect to noise, again we find that only limited information is provided and much of the documentation to back the analysis is missing. For example, the Applicant took 15-minute noise reading and extrapolated them out to 24 hours with describing how the methodology was performed. Additionally, the vehicle mix used in the analysis does not match that of Orange County in general, nor does it follow Caltrans estimates, where applicable, and no rationale is provided as to how it was ascertained.

We also find that the noise associated with haul trucks may be underestimated due to an inconsistency in the document. Whereas the noise analysis estimates that no more than 20 trucks would visit the site on a daily basis, the traffic analysis puts this number as high as 200 trucks a day.

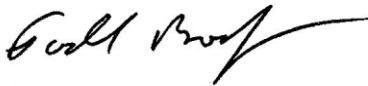
We also find that the mitigation does not go far enough. The Applicant is to provide the City of Costa Mesa with money for roadway improvements that the residents cannot be assured of. However, the mitigation makes no offer for sound insulation improvements that would go directly to the sensitive homeowners.

Furthermore, “temporary” construction carried out during regular business hours requires that residents be provided with sound walls when equipment comes to within 300 feet of the residence. But the text notes that consolidated oilfield operations (which use similar equipment and make similar noise levels except that they can go on 24-hours per day everyday for a week during drilling) could be within 250 feet of existing and 200 feet of future residents, and requires no sound walls. CEQA notes that the mitigation is to be commensurate with the impact and this on-going operational impact would obviously outweigh the temporary impacts of on-site construction.

We feel that the Applicant’s incorporation of the included comments will result in a better, more defensible document. If you have any questions or need further information, don’t hesitate to contact us.

Sincerely,

Svnectecologv

A handwritten signature in black ink, appearing to read "Todd Brody", with a stylized flourish extending to the right.

Todd Brody,

Principal

Review of the Draft Environmental Impact Report Prepared for the Banning
Ranch Project

Prepared by:

Synectecology
10232 Overhill Drive
Santa Ana, CA 92705

Prepared For:

Dorothy Kraus
10 Wild Goose Court
Newport Beach, CA 92663

April 26, 2012

Review of the Draft Environmental Impact Reports Prepared for the Banning Ranch Project DEIR, September 9, 2011

SECTION 4.10, AIR QUALITY

General Comment: The Health Risk analysis bases the projected pollutant concentrations on a 20-acre site for the consolidated oilfield operations. However, Page 3-1 of the Project Description notes that the oilfield operations will be consolidated into a 16.5-acre area. Because emissions concentrations are based on a volume of emissions per unit area, decreasing the area to the 16.5-acre size noted in the Project description will raise the projected pollutant concentrations. Use of a 20-acre site decreases the projected concentrations by 21% (i.e., $(20 \text{ acres} / 16.5 \text{ acres} - 1 \times 100\%)$). Therefore, analysis not only underestimates the health risks at the proximate receptors, but also underestimates the extent of the risk on the surrounding population.

General Comment: The project data for the health risk assessment and construction-related greenhouse gas emissions was generated using the outdated URBEMIS model while the analysis for criteria pollutants and operational greenhouse gas emissions was based on the CalEEMod model. These models use different equipment assumptions; daily area graded, etc. and the results are not compatible. In fact, the Applicant responded to a comment by Allen Forster on the use of the models and specifically noted:

“BonTerra Consulting’s testing, confirmed through many contacts with SCAQMD, showed that CalEEMod predicts higher emission rates than URBEMIS for development projects in Orange County. Because CalEEMod is more conservative than URBEMIS, CalEEMod was used on the Newport Banning Ranch Project. Based on BonTerra Consulting’s testing of the model and continuing discussions with the South Coast Air Quality Management District (SCAQMD) about CalEEMod characteristics, the City is confident that there are no flaws in the model that would result in under-prediction of air quality impacts to sensitive receptors.”

So because the CalEEMod model is more conservative and predicts higher emissions, and does not result in “under-prediction,” we must assume that the health risk analysis is flawed in using the URBEMIS model and that those emissions are in all likelihood “under-predicted.” This then invalidates the health risk analysis, and for consistency and continuity, and so that the Decision Makers can make an informed decision as to the true potential of the health risk, it must be redone using the CalEEMod model.

General Comment: While the text notes that the project construction follows the schedule provided in the Project Description, the results of the model runs included in Appendix G show that this isn’t so. In fact, the construction schedule was extended by several years from the provided schedule just to reduce the daily emissions impacts.

For example, Table 3-3 of the Project Description shows that the Phase 1 construction of the models and homes would occur between 2/2016 and 9/2016, for a duration of just 7 months.

However, when one reviews the CalEEMod model results included in Appendix G, one finds that the construction of the models and homes runs from 2015 through 2017. The model heading pages included in Appendix G illustrating this point are included below:

Page 18 of 55, 3.5 Building Construction Phase 1 – 2015,

Page 20 of 55, 3.5 Building Construction Phase 1 – 2016, and

Page 22 of 55, 3.5 Building Construction Phase 1 – 2017,

So by artificially extending the construction schedule out from 7 months to 3 years, the Applicant has reduced the daily emissions by approximately 85 percent (i.e., $1 - (7 \text{ mo} / 48 \text{ mo}) \times 100\%$).

Similarly, for Phase 3, the Project Description notes that the construction of the models and homes would occur between 2/2020 and 9/2020, again for a duration of just 7 months. However, in this case the analysis extends the actual construction out over 5 years.

Once again, when one reviews the CalEEMod model results included in Appendix G, one finds that the Phase 3 construction of the models and homes runs from 2019 through 2023. The model heading pages included in Appendix G illustrating this point are included below:

Page 46 of 55, 3.10 Building Construction Phase 3 – 2019,

Page 48 of 55, 3.10 Building Construction Phase 3 – 2020,

Page 50 of 55, 3.10 Building Construction Phase 3 – 2021,

Page 52 of 55, 3.10 Building Construction Phase 3 – 2022, and

Page 54 of 55, 3.10 Building Construction Phase 3 – 2023,

In this case artificially extending the construction schedule out from 7 months to 5 years has the effect of reducing the daily emissions by 88 percent (i.e., $1 - (7 \text{ mo} / 60 \text{ mo}) \times 100\%$) grossly under-predicting the daily impacts.

So it would appear that instead of following the actual construction schedule, the analysis simply allocates the construction over the both the construction and occupancy period thereby artificially reducing the average daily emissions and leading to conclusions of no significant impacts where impacts will in fact occur. The analysis must be redone using the construction schedule projected in the Project Description and the impacts reassessed.

General Comment: The analysis does not include the dates/durations used in the construction phasing nor does it provide the input files used in the CalEEMod model. This makes replication of the results impossible and these data must be submitted for independent verification.

General Comment: While the Applicant fails to include the data used in the number of haul trips on a daily basis, review of the model output would suggest that no more than 1 or 2 trips per day are included. However, Page 142 of Appendix F, Transportation and Circulation, states that “Construction truck traffic will be limited to 16 trucks per hour between June 1 and September 1, and 25 trucks per hour at all other times of the year.” Based on an 8-hour workday as is used in the Air Quality Analysis, this would then infer that 128 to 200 trucks per day could be used just in the remediation effort. The Applicant has failed to address the impact of the air quality emissions and health risk from diesel particulates associated with these 200 trucks per day that would visit the site, as well as the augmented level of construction equipment necessary to fill them.

General Comment: The project description indicates the use of subterranean parking. The air quality analysis is remiss in not considering the potential for elevated CO emissions within the proposed parking structures.

Page 4.10-7, 1st & 3rd Paragraphs: The analysis notes the use of the *outdated* URBEMIS model for calculation of dust and oilfield operational emissions to be used in the analysis of toxic air contaminants. However, Page 4.10-5, 3rd paragraph notes the use of the CalEEMod model for use in projecting criteria pollutants for construction and project-related operational emissions. Because the two models predict different particulate levels, the use of the two models leads to an inconsistency in the analysis. The analysis should be redone using the CalEEMod model in place of the dated URBEMIS model and the impacts reassessed.

Page 4.10-14, Table 4.10-5: There is really no explanation as to how the values provided in the table were prepared and the values would appear to be in error.

For example 1,3-butadiene shows 0.002453 pounds per hour and 0.5633 pounds per year. This then infers that this toxic air contaminant is emitted for 229.6 hours per year (i.e., $0.5633 \text{ lb/yr} / 0.002453 \text{ lb/hr} = 229.6 \text{ hr/yr}$).

But acetaldehyde shows 0.094807 pounds per hour and 0.2468 pounds per year. This then infers that this toxic air contaminant is emitted for just 2.6 hours per year (i.e., $0.2468 \text{ lb/yr} / 0.094807 \text{ lb/hr} = 2.6 \text{ hr/yr}$).

Finally, acrolein (2-propenal) shows 0.000001 pound per hour and 0.138261 pounds per year. This then infers that this toxic air contaminant is emitted for 138,261 hours per year (i.e., $0.138261 \text{ lb/yr} / 0.000001 \text{ lb/hr} = 138,261 \text{ hr/yr}$). It should be noted that there are only 8,760 hours in a year (i.e., 24 hours/day x 365 days = 8,760 hr/yr).

Because these types of emissions are primarily associated with oilfield operations, it is logical that these pollutant species, as well as most of the other emissions in the table, would be based on a similar timeframe for release. Please explain these apparent discrepancies and correct the analysis as necessary.

Page 4.10-18, Table 4.10-6: The table notes an industrial threshold of 10,000 Mtons per year of CO₂e. However, the project is not industrial in nature but residential and commercial. The SCAQMD has a suggested threshold of just 3,000 Mtons per year of CO₂e for residential and commercial land uses, and this threshold should be used in the analysis. Note that this threshold is half the 6,000 Mtons per year of CO₂e used in the analysis of impacts. Please revise the analysis to use the appropriate threshold criterion.

Page 4.10-19, 5th Paragraph: The air quality analysis references Table 3-5 of Section 3 for the phasing plan. First, contrary to the text, there is no Table 3-5 (it is Table 3-3) in Section 3, so please correct the reference.

Next, again, contrary to the text, the schedule used in the air quality analysis does not match that included in Table 3-3. Because both equipment and vehicle emissions vary with the year, the air quality analysis is inherently incorrect by using the wrong dates. Please revise the EIR to use a consistent set of dates and time frames for all disciplines.

Page 4.10-20, 1st Paragraph: The analysis notes that it uses the URBEMIS model. That model is now outdated and the analysis should be done using the CalEEMod model. Revise the analysis accordingly.

Page 4.10-22, 2nd Paragraph: There is no basis for the 7-acre estimate nor does the Applicant supply justification for using this size area.

The actual area to be disturbed is to be based on the equipment used and the SCAQMD provides guidance as to how the acreage is to be allocated. The Applicant ignores this guidance and this then leads to an underestimate of the emissions' concentrations and their impacts.

Review of the CalEEMod model results show that the analysis allocates two excavators, one grader, one dozer, one scraper, and two track/loader/backhoes to the grading effort. The SCAQMD has provided a *Fact Sheet for Applying CalEEMod to Localized Significance Thresholds* and provides the following table. Furthermore, the SCAQMD specifically notes that this is "The maximum number of acres disturbed on the *peak day*" (emphasis added).

Equipment Type	Acres/8hr-day
Crawler Tractors	0.5
Graders	0.5
Rubber Tired Dozers	0.5
Scrapers	1

Other pieces of equipment (e.g., excavators, track/loader/backhoes) work in conjunction with those pieces that are more mobile so add little to the area of disturbance (e.g., an excavator sits in-place digging a hole and a loader moves dirt from a pile to a truck).

So based on the equipment listing provided in the CalEEMod model results, the daily area disturbed is not 7 acres as portrayed, nor even 5 acres as used in the analysis, but only 2 acres (i.e., 1 grader x 0.5 acre + 1 dozer x 0.5 acre + 1 scraper x 1 acre = 2 acres).

The SCAQMD makes it clear that this is the way in which the analysis is to be conducted and even provides the following example in the Fact Sheet:

“Example 1

A 15-acre development proposes to use one grader, one scraper, and one tractor for eight hours each during Site Preparation activities (the peak day in this case). As the maximum daily disturbed acreage for this equipment is 2 acres ($0.5 + 1 + 0.5 = 2$), the project proponent should compare the CalEEMod reported emissions against the 2-acre LST lookup tables.” Therefore, the analysis must be revised to comply with the prescribed SCAQMD methodology.

Using the prescribed SCAQMD methodology, Table 4.10-9 clearly shows that NO_x, PM₁₀, and PM_{2.5} would all be significant based on a 2- rather than 5-acre site as was used in the analysis. This then represents a previously undisclosed significant impact and no mitigation has been proposed to reduce its effects at receptor locations.

Furthermore, even if the Applicant can demonstrate that the use of Offroad2011 model, would show that Tier 3 equipment can reduce NO_x to less than the value included in the 2-acre LST lookup table (as is provided in the Topical Response to Comments), use of Tier 3 equipment does not control particulate matter associated with the exhaust, nor does it reduce the dust raised during construction activities and the impact remains significant and previously undisclosed.

Furthermore, this points to another flaw in the analysis. For some undisclosed reason, the Applicant assumes that 7 acres are graded on a daily basis, but according to the SCAQMD, only provides enough equipment to grade 2 acres per day. Therefore, to meet the desired timeframe, the listing of equipment, and their attendant emissions, must be augmented by a factor of 3.5 times (i.e., $7 \text{ acres} / 2 \text{ acres} = 3.5$), or the schedule will drag on 3.5 times longer than has been portrayed in the Project Description. Either way, the analysis needs to be revised accordingly.

Page 4.10-22, Table 4.10-9: In accordance with the SCAQMD data, the values presented for CO for 1- and 2-acre sites are incorrect and should be 647 and 962 pounds per day, respectively. While this does not change the outcome of the analysis, it shows an inattention to detail. Please revise the table accordingly.

Page 4.10-22, Table 4.10-9: The table shows maximum daily on-site emission of just 7 and 4 pounds for PM₁₀ and PM_{2.5}, respectively and notes that these values are below the

screening threshold. However, Table 4.10-7 clearly shows PM₁₀ and PM_{2.5} level of up to 48 and 13 pounds per day, respectively. These values are well above the 7 and 4 pounds quoted for PM₁₀ and PM_{2.5}, respectively, as well as the presented threshold values of 14 and 9 pounds per day, respectively. Because the text doesn't describe which of the emissions in Table 4.10-7 are produced on-site and should be counted toward the localized thresholds, the reader cannot make an informed decision as to the actual significance, or even the validity of the values presented in Table 4.10-9. In the interest of full disclosure, the text must clearly show which of these emissions are being considered. The Decision Makers will not review the technical appendix nor be expected to understand it.

Page 4.10-23, 2nd Paragraph: The dates noted of analysis based on projected occupancy do not agree with those presented in Table 3-3 of the Project Description and because emissions are based on the year analyzed, the analysis is in error. Revise the analysis to address the dates in the Project Description.

Page 4.10-25, Table 4.10-13: The table shows 17.8 pounds per day for PM₁₀ and 3.5 pounds per day for PM_{2.5}. In accordance with the text provided in the Health Risk Assessment included in Appendix G, these emissions are all produced on-site. From the Appendix:

“It was assumed in this inventory that operational emissions occur 8 hours per day, with the exception of oil rigs that operate 24 hours per day. All on-road vehicles, mainly vacuum trucks, cement trucks, and crew trucks/vans were assumed to travel a maximum of five (5) miles per on-site trip on unpaved roads.”

Also,

“The emission sources included in the inventory were natural gas fuel combustion for building heat and hearth fuel (winter only), landscaping equipment fuel combustion, consumer products and architectural coating. It was assumed that the portion of the trips generated by the development that occurs on the Proposed Project site is 1 mile round trip for residential trips and 0.2 miles round trip for commercial trips. The remaining length of trips generated by residential and commercial buildings is assumed to occur off-site and was therefore not included in the HHRA.”

As noted, these are operational emissions that are all produced on-site. Many of the oilfield operations would be consolidated into two common areas increasing the emissions concentration in those and their surrounding areas.

Because these are localized emissions generated on-site, they are subject to the SCAQMD Localized Threshold Limitations for project operations and the analysis is deficit for not examining the impact of these localized emissions on both the proposed sensitive land uses, as well as proximate off-site receptors.

Furthermore, in this case because the emissions are on-going operational, rather than construction-oriented, the significance thresholds for PM₁₀ and PM_{2.5} are reduced from 10.4 µg/m³ to just 2.5 µg/m³. In this case a 5-acre site, as was erroneously used elsewhere in the analysis, would be significant for PM₁₀ if just 4 pounds were produced on a daily basis. PM_{2.5} would be significant if just 2 pounds were produced on a daily basis. Again, Table 4.10-13 shows that on-site PM₁₀ and PM_{2.5} values are 17.8 and 3.5 pounds per day, respectively. These values are well above the SCAQMD Localized Threshold Limitations for project. This then represents a previously undisclosed impact that has not been addressed nor mitigated.

While it is conceded that based on the size of the site, some of these on-site emissions would not contribute substantially toward elevated concentrations in any one area, it is up to the analysis to aggregate the on-site oilfield emissions and any proposed sources as appropriate, and address the localized emissions at all existing and proposed sensitive receptor sites to show otherwise. This analysis has not been performed.

Page 4.10-27, 2nd Paragraph: While the SCAQMD may have different thresholds for construction and operation, based on the simultaneous timing and proximity of phased construction with the ongoing operational development, the combined impact of construction and operation would represent a significant cumulative impact that must be disclosed. Please revise the analysis as necessary.

Page 4.10-28, 2nd Bullet: The text notes that the Sacramento Metropolitan Air Quality Management District methodology would only be applicable if “The intersection, which includes a mix of vehicle types, is not anticipated to be substantially different from the County average.” In this case the “County” represents Sacramento County and not Orange County. To use the Sacramento County screening methodology, the Applicant must therefore demonstrate that the vehicle mix in Orange County is similar to that in Sacramento County. This has not been done and therefore, the Applicant is remiss in using this methodology without validation.

In actuality, the Applicant should be modeling these intersections using the CALINE4 Model as is suggested by the SCAQMD, and not SMAQMD screening methodology for intersection analysis.

Page 4.10-30, 2nd Paragraph: The analysis uses a distance of 100 meters from the fence line for sensitive receptors. SCAQMD methodology requires that the proximate receptors be modeled at a distance of 25 meters. Revise the analysis accordingly.

Page 4.10-32, 3rd Paragraph: The analysis fails to consider any odor impacts associated with the remediation of the site and disposal of contaminated soils. To simply say these odors are “not anticipated” is not adequate assurance. Please address this potential impact.

APPENDIX G

HRA

Page 2-7, 4th Paragraph: The analysis makes use of data from the San Diego area when more proximate data is available. The analysis should use the most representative data proximate to the project area.

Page 5-1, 6th Paragraph: The Tier 1 analysis is based on a receptor distance of 100 meters. However, Figure 4-3 would appear to include proposed receptors located more proximate than this distance. The SCAQMD recommends a minimum distance of just 25 meters when the actual distance to proximate receptors is unknown or closer than this distance. Obviously, a closer receptor would experience a higher pollutant concentration so Tier 1 methodology would not apply to any receptor closer than 100 meters. Please revise the analysis accordingly.

ATTACHMENT A, TAC EMISSIONS CALCULATIONS

General Comment: The analysis would appear to include those emissions from the equipment and vehicles used in the oilfield operations as well as those produced by the proposed on-site uses. The analysis also notes that it includes air toxics included in the fugitive dust and hydrocarbon emissions associated with the oilfield operations. However, we find no calculations that present how the emissions generated from this fugitive dust and release additional hydrocarbon emissions were converted into the various toxic pollutant species. Please supply the missing calculations.

Page 5-30, Table: The calculation used for both PM₁₀ and PM_{2.5} from on-site dust are in error and underestimate these emissions. The spreadsheet calculates PM_{2.5} using a value of 10% of the PM₁₀ (i.e., 3.511 for PM₁₀ and 0.351 for PM_{2.5}) for dust whereas the CalEEMod models put this value at approximately 54% of the PM₁₀ associated with construction.

Furthermore, Page 18 of 30, CALIFORNIA EMISSION INVENTORY AND REPORTING SYSTEM (CEIDARS), on which the analysis is based, puts these PM_{2.5} emissions at 21.2% of the PM₁₀ value.

Additionally, Page 17 of 30 puts PM_{2.5} at 16.9% of PM₁₀. (i.e., $0.00013774 / 0.00081571 \times 100\%$).

However, the Applicant chose to use the least conservative of all the values included in the text of 10% (i.e., $0.070229 / 0.702286 \times 100\%$) as shown on Page 20 of 30. Still, even the values predicted by this method for both PM₁₀ and PM_{2.5} are in error and are too low.

The amount of dust kicked up is a function of the silt content on the road. The analysis assumes, without providing any reason or justification, a silt content of just 2%. However, AP-42, from where the calculations are derived, does provide guidance and suggests a mean value of 8.5% for silt at construction sites. Use of the 8.5% value would

directly raise both the PM₁₀ and PM_{2.5} emissions by 425% (i.e., 8.5% / 2% x 100%). Please revise the analysis accordingly.

Page 1 of 22, Newport Banning Ranch Proposed Project Residential and Commercial Development, Criteria, Greenhouse Gas, and Toxic Air Emissions: The table calculates greenhouse gases using the outdated URBEMIS Model. The CalEEMod model that replaced the URBEMIS model includes many greenhouse gas sources (e.g., energy use, water conveyance, vegetation CO₂ sequestering) that are not addressed in the URBEMIS model. The analysis must be redone using the CalEEMod model as was used for the criteria pollutants.

Page 1 of 22, Newport Banning Ranch Proposed Project Residential and Commercial Development, Criteria, Greenhouse Gas, and Toxic Air Emissions: The emissions projected in the table and used in the Health Risk and Greenhouse Gas analysis differ from those included in the criteria pollutant analysis and the Decision Makers have no way of knowing which is more accurate.

We have prepared a table showing the emissions used in the two analyses. *Note that contrary to what has been stated by the Applicant that the CalEEMod Model is more conservative than the URBEMIS model, the URBEMIS model actually predicts higher CO and particulate levels than the CalEEMod model.*

Furthermore, based on the URBEMIS model, the project would also be significant for PM₁₀ (168.1 pounds per day reported with URBEMIS and 125 pounds per day reported from CalEEMod). *Of course these differences could also be that the health risk assessment is not using the same set of assumptions as the analysis of the criteria pollutants, and again, the results are not comparable.*

The document needs to be revised so that all modeling is done using the same model, where applicable, so that the analysis is internally consistent.

URBEMIS VS CALEEMOD Model Results, Project Operations						
Criteria Pollutants	CO (lbs/day)	VOC (lbs/day)	NO_x (lbs/day)	SO_x (lbs/day)	PM₁₀ (lbs/day)	PM_{2.5} (lbs/day)
URBEMIS Values Used in Health Risk and Greenhouse Gas Analyses						
Residential and Commercial	34.63	76.21	26.32	---	0.74	0.73
Vehicles	676.76	67.43	78.94	1.00	167.33	32.38
Total	711.4	143.6	105.3	1.0	168.1	33.1
SCAQMD Threshold	550	55	55	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	Yes	No
CalEEMod Year 2023 Values Presented in the DEIR Analysis						
Area Sources	115	48	1	<0.5	2	2
Energy Sources	5	1	11	<0.5	1	1

Vehicles	463	146	97	1	121	6
Total	583	195	110	1	125	9
SCAQMD Threshold	550	55	55	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	No	No
Difference (CalEEMod – URBEMIS)	<128.4>	51.4	4.7	0	<43.1>	<24.1>

Page 14 of 22, URBEMIS Model Input: The text notes that the analysis is based on 12,096 average daily trips (ADT). The analysis specifically states that the project would generate 14,447 daily trips, but the value is reduced to 12,096 ADT to account for the “internal capture.”

However, Page 25, Table 2 of the Traffic Appendix F shows that the project would generate 16,115 ADT and with internal capture and pass-by trips, the value is reduced to 14,989 ADT. Thus, based on the traffic analysis, the air quality analysis is underestimating mobile source emissions by approximately 20 percent and the analysis is in error. The EIR needs to be revised so that all disciplines are based on the same set of assumptions.

Page 1 of 5, SCREEN3: The analysis bases the projected concentrations on a 20-acre site. However, Page 3-1 of the Project Description notes that the oilfield operations will be consolidated into a 16.5-acre area. Because emissions concentrations are based on a volume of emissions per unit area, decreasing the area from 20 acres to the 16.5-acre size noted in the Project description will raise the projected pollutant concentrations. Use of a 20-acre site decreases the projected concentrations by 21% (i.e., $(20 \text{ acres} / 16.5 \text{ acres} - 1) \times 100\%$) over those of a 16.5-acre site. The analysis then not only underestimates the health risks at the proximate receptors, but also underestimates the extent of the risk on the surrounding population.

Page 1 of 5, SCREEN3: The analysis places the closest receptor at a distance of 500 meters (1,640 feet) and takes the analysis out to 2,000 meters (6,560 feet) from the oilfield activity. Receptors would be located considerably closer than the reported 500-meter minimum distance and the concentrations, and cancer burden, will be far greater than presented in the analysis at the proximate receptors. In accordance with SCAQMD methodology, the closest receptors are to be located at a distance of 25 meters (82 feet) and the analysis needs to be revised to address this minimum distance, or at least the actual distances to existing and proposed receptor locations.

Page 14 of 22, URBEMIS Model Input: The Applicant has grossly underestimated the area of construction leading to erroneous equipment use and emissions values. The analysis uses the following values and therefore assumes that 118.5 acres of the site are disturbed.

Use	Assigned Acreage
Condo/Townhouse High-rise	21.0
Townhomes/Condos	19.5
Single-family	63.0
Hotel	11
City Park	25
Strip Mall	No acreage allocated
Total	118.5

However, Table 3-3 on Page 3-39 of the Project Description clearly shows that 154.3 acres are dedicated to improvements. Furthermore, the table shows 246.8 acres associated with the oilfield, much of which will need remediation. As such, the analysis of construction emissions for grading clearly underestimates the brunt of the impact and needs to be revised to fit the Project Description.

Page 16 of 22, URBEMIS Model Settings: While Page 14 of 22, URBEMIS Model Input *noted* that the analysis is based on 12,096 ADT, (reduced from 14,447 daily trips), the analysis actually uses a value of 13,323 ADT as shown on this page. Again, this demonstrates an inattention to detail.

CalEEMod Modeling Results (1st Set)

General Comment: The Applicant has failed to include the “input files” for all CalEEMod model runs and the CalEEMod model results do not report most of the input parameters (e.g., volume of soil hauled on a daily basis) used in the analysis. This then makes independent verification of the model result impossible to duplicate. The input file must be included for review and consistency with the project description prior to finalization of the document.

Page 7 of 55, Mitigation Measures for Construction: Again, the analysis fails to quantify those measures used in the mitigation (i.e., assumed control efficiency) and these results are not reported by the model. The Applicant must clearly list the assumed mitigation measures and their control efficiency so that they may be verified.

The analysis requires the use of Tier 3 (and where feasible, Tier 4) equipment and to implement the mitigation the CalEEMod analysis specifies “Use cleaner engines for construction equipment” and “Use DPF (diesel particulate filters) for construction equipment.” The analysis then fails to quantify the assumed reduction for the “cleaner engines” and the model output does not report these values for independent verification.

Furthermore, Tier 3 engines control the NO_x and ROG associated with heavy equipment, but not the diesel particulates. Use of the DPF mitigation without specifically calling out the requirement for DPF as a mitigation measure in the document underestimates the impacts of the diesel particulate matter (DPM). We’ve reproduced the SCAQMD table showing the emissions associated with the various Tiers below. Again note that Tier 3 emissions require similar levels of DPM as Tier 2. Because the mitigation did not specify

the use of diesel particulate filters, no credit may be taken for their use, though the analysis apparently has done this thereby underestimating these emissions and the impact.

TABLE II – OFF-ROAD ENGINE EMISSION RATES & COMPARISON OF UNCONTROLLED TO TIERED RATES AND TIERED TO TIERED RATES													
TABLE II-B TIER 1,2,3, AND 4 OFF-ROAD ENGINE EMISSION STANDARDS													
Engine	Tier 1 (g/bhp-hr)			Tier 2 (g/bhp-hr)			Tier 3 (g/bhp-hr)			Tier 4 (g/bhp-hr)			
Size (hp)	NOx	ROG	PM	NOx	ROG	PM	NOx	ROG	PM	NOx (interim)	NOx (final)	ROG	PM
75-99	6.9			5.32	0.28	0.3	3.325	0.175	0.3	2.5	0.3	0.14	0.015
100-174	6.9			4.655	0.245	0.22	2.85	0.15	0.22	2.5	0.3	0.14	0.015
175-299	6.9	1	0.4	4.655	0.245	0.22	2.85	0.15	0.22	2.5	0.3	0.14	0.015
300-600	6.9	1	0.4	4.56	0.24	0.22	2.85	0.15	0.22	2.5	0.3	0.14	0.015

CalEEMod Modeling Results (2nd Set)

Page 2 of 11: The Applicant has unrealistically augmented the construction schedule thereby avoiding the prediction significant impacts. This phase includes the construction of just 228 dwelling units. However, the analysis pushes the painting of these structures out to 545 working days (i.e., ArchCoat1 8/15/2015-9/15/2017; 545 wd). This is unrealistic (0.4 dwelling unit painted on a daily basis) and was obviously done to reduce the daily impact of the VOCs associated with painting the structures that is typically found to present a significant impact for a project of this magnitude.

The Applicant is aware that the CalEEMod default for painting of a project of this size is approximately 35 days. Therefore, by artificially extending the schedule out to 545 days reduces the daily emissions by 94% (i.e., $1 - 35 \text{ days} / 545 \text{ days} \times 100\%$). Page 6 of 11 of this model results shows architectural coatings produce 5.3 pounds per day during construction. If the CalEEMod default value of 35 days is used in the analysis, as should have been done, these emissions are augmented to 82.5 pounds per day (i.e., $5.3 \text{ lb/day} \times 545 \text{ days} / 35 \text{ days} = 82.5 \text{ pounds per day}$). It should be pointed out that the daily threshold for this pollutant is 75 pounds per day as shown in the table on Page 4.10-21 of the air quality analysis and this represents another previously undisclosed significant impact of the project for which no mitigation has been proposed. Similarly, this same artificial augmentation was performed with the other phases of construction leading to erroneously low daily emissions and all need to be corrected.

CalEEMod Modeling Results Buildout 060911

Page 5 of 52, Mitigation Measures: The analysis notes that the Applicant will water exposed surfaces but fails to quantify the efficiency of the mitigation for independent verification and the model does not output this parameter. All assumptions (e.g., days

spent in each type of construction activity such as grading, building construction, painting, etc. must clearly be noted so that the analysis may be replicated by an independent third party.

CalEEMod Modeling Results Phase 2 Operations

Page 2 of 9: The text notes that the analysis fails to include the ongoing release of ROG emissions associated with the maintenance of paints and coatings thereby under-predicting operational ROG emissions. Inclusion of these emissions could increase the 50.71 pounds per day for ROG, presented on Page 3 of 9, above the 55 pound per day threshold presenting a significant impact. These emissions must be included in the inventory to determine the significance of the impact. Revise the analysis accordingly.

CalEEMod Modeling Results Buildout 062411

Page 5 of 10: The analysis estimates that the project generates 32,228.6 vehicle trips per day. However, Page 25, Table 2 of the Traffic Appendix F shows that the project would generate 16,115 ADT and with internal capture and pass-by trips, the value is reduced to 14,989 ADT. We recognize that the Applicant has “chopped up” these trips to determine both on-and off-site trips in the emission calculations. However, the Applicant has provided no guidance as to how these trips were allocated making the analysis irreproducible. Please supply the missing conversion data for all model runs.

Page 8 of 10: The Applicant specifies the use of low VOC paints and coatings. VOC content in paints and coatings is regulated by the SCAQMD. If the Applicant has used the model default values, then these are not “low VOC” coatings as indicated, but just coatings that comply with the SCAQMD regulations and should not be called “low VOC.” If the Applicant is truly specifying the use of “low VOC” coatings that are more stringent than the SCAQMD regulatory levels, then it must be out of the result of a significant impact that has not been disclosed. (As we previously noted, the painting schedule has been extended over the period of construction and occupancy reducing its daily emissions.) In either case the Applicant has failed to disclose the VOC content and this must be specified for all model runs.

SECTION 4.11 – GREENHOUSE GASES

Page 4.11-11, 4th Paragraph: Contrary to the text, there is no basis for the use of a 6,000-Mton threshold for greenhouse gases. At one time in the past, prior to the advent of the noted SCAQMD Working Group, the City suggested that a standard should be no higher than the 7,000-Mton standard then proposed by CARB back in 2008, and drafted before that time. As noted on Page 4.11-9, the SCAQMD Working Group did not come into being until 2008 and did not issue their approach and suggested threshold levels until 2010.

Regarding the City of Newport Beach’s approach to greenhouse gas emissions, quoting from Page 4.11-11, 4th Paragraph, “To restate, until more guidance is provided from the

expert agencies...” This guidance was provided in 2010 by the SCAQMD Working Group and for a project of this nature, the threshold is the stated 3,000 Mtons per year of CO₂e for a mixed-use project. The analysis must be revised to address this threshold value now suggested by the SCAQMD.

Page 4.11-12, 2nd Paragraph: The Applicant dismisses those greenhouse gases associated with solid waste. The document notes, “Solid waste emissions are not addressed in this analysis because of corrections in process to the model. Solid waste GHG emissions are relatively a very small part of overall emissions and omission of these data is considered to be acceptable.”

Please provide a reference showing that solid wastes are being readdressed in future model updates and that their inclusion is unnecessary as we can find nothing to this effect on either the SCAQMD or CalEEMod Internet web sites.

Furthermore, we note that in their June 2011 “User Tips,” the SCAQMD does indicate that several other portions of the model are receiving modification. So by the same token, why has the Applicant included these portions and not solid wastes?

Our experience with the CalEEMod model shows that the greenhouse gases from solid waste amount to about half of those from unmitigated water use. The analysis indicates that unmitigated water use for the operation of the project accounts for approximately 794 Mtons per year of CO₂e. If the emissions from solid waste are half of this value (i.e., 297 Mtons per year), they alone would account for over 13% of the 3,000-Mton per year threshold suggested by the SCAQMD for mixed-use projects. This is hardly a “very small part of the overall emissions” and these emissions must be included in the analysis. At the very least, in the interest of full disclosure, the analysis should present these emissions for the reader then explain why they are omitted in the total.

Page 4.11-13, 2nd Paragraph: The greenhouse gas study prepared for the future oilfield operations was prepared using the outdated URBEMIS model and as discussed, and illustrated previously, are not comparable with those projected using the CalEEMod model. The HRA will need to be modified to use the CalEEMod model so that the emissions may be added together to determine the full extent of the impact.

Page 4.11-18, 1st Bullet: Again, the use of a 6,000-Mton CO₂ threshold is unwarranted and the SCAQMD methodology suggests that a value of 3,000 Mtons be used.

APPENDIX H

Any changes made to Appendix G as a result of the prior comments must be carried through into Appendix H.

SECTION 4.12, NOISE

Page 4.12-11, Table 4.12-6: The second column notes the inclusion of the date and time. However these data are not included. Please correct the table and provide the missing data.

Page 4.12-11, Table 4.12-6: Footnote C notes “The 15-minute short-term noise level measurements were converted into 24-hour CNEL based on the hourly patterns from the long-term measurements 15 and 16; see Table 4.12-7 and Appendix I.” While Table 4.12-7 includes the CNELS for measurements 15 and 16, it does not indicate how these values are applied to extrapolate the CNEL values for the short-term measurements. Furthermore, contrary to what is stated in the table, Appendix I provides no reference to how these values were ascertained. This then makes replication of the analysis impossible and the missing data and methodology must be supplied for review.

Page 4.12-16, 4th Paragraph: There is no basis provided for the 20 days required for the implementation of the mitigation. If the receptors are to be significantly impacted, then mitigation must be provided.

Page 4.12-17, 2nd Paragraph: The text states “Although truck noise may occasionally be noticed (i.e., mostly by residents along West Coast Highway, 16th Street, and 17th Street), the volume of trucks would not be substantial, with truck trips not likely to exceed 20 trips per day.”

This would infer that volumes of up to 20 trucks a day could be expected. However, Page 142 of Traffic, Appendix F states that “Construction truck traffic will be limited to 16 trucks per hour between June 1 and September 1, and 25 trucks per hour at all other times of the year.” Based on an 8-hour workday as is used in the Air Quality Analysis, this would then infer that 128 to 200 trucks per day could be used just in the remediation effort.

Road noise is extremely sensitive to the volume of heavy trucks. Revising the truck estimate from 20 trucks per day to 200 trucks per day increases the noise associated with these operations by 10 dBA. The noise analysis needs to quantitatively examine the traffic associated with project construction traffic in accordance with the traffic analysis and not just dismiss it as “not likely to exceed 20 trips per day.”

Page 4.12-22, 2nd Paragraph: What is the basis for the assumption that rubberized asphalt would decrease road noise by 4 dBA? Road noise is a combination of tire, engine, and wind noise. Using rubberized asphalt, only tire noise would be reduced. The claimed reduction of 4 dBA represents a decrease from the current volume of traffic by 60 percent, yet only the tire noise would be reduced.

Also, please address the impacts of the mitigation. For example, resurfacing the road would locate additional construction equipment proximate to the residents and they would be subject to augmented traffic, noise, and air quality impacts from this equipment.

Page 4.12-22, 4th Paragraph: As noted, a sound wall will not protect 2nd story balconies and patios and the Applicant has provided no mitigation. However, viable mitigation would include the installation of transparent material, at least up to the height of the balcony railing. Because this noise is coming from below, this second story wall would not need to be as high as a ground level wall and would provide additional attenuation. Use of a wall only as high as the railing would still allow for interior airflow with the window/door open.

In fact Page 4.12-27, 1st Paragraph notes for those residents adjoining the project site, “For second floor balconies, noise barriers could be installed around the balconies. Although these measures are feasible and would mitigate the significant noise impact, improvements would be implemented on private property thereby requiring the permission of private property owners and the Newport Crest HOA.” Just as these measures are applicable to the Newport Crest community, they are applicable to the residents of Costa Mesa impacted by traffic noise and the Applicant is remiss for not including this mitigation.

Page 4.12-22, 5th Paragraph: As noted in the text, the Applicant cannot be assured that the money provided for roadway resurfacing actually goes for that purpose and thereby notes that the impact is significant and unavoidable. However, under CEQA, the Applicant must do all that is feasible, regardless of cost, to reduce the impact.

Because the level of interior noise is directly related to the exterior level, any increase in road noise will result in a similar increase within the structures. In this case, because the Applicant can’t assure affected receptors that the City of Costa Mesa will resurface the roadway, the Applicant must offer the residents of these homes the same amenities that they offer the residents that border the site as included in MM 4.12-7.

Page 4.12-33, 1st Paragraph: The text notes, “MM 4.12-10 would provide an 8-foot-high screening wall to reduce potential noise impacts if loading docks or truck driveways are proposed as part of the Project’s commercial areas within 200 feet of an existing residence.”

Noise from heavy trucks comes from the tires as they roll along the asphalt, the engine, and the exhaust stacks. FHWA and Caltrans estimate the combined “average” height of these three factors at about 8 feet and this is the height that the wall is based on with the need to break the line of sight from the receptor to the truck. However, those trucks engaged in loading activities are not rolling, so the tires make no contribution to the noise. Both FHWA and Caltrans note that to be effective, a sound wall must block the line of sight to the noise source. Both FHWA and Caltrans put the height of heavy truck exhaust stacks at 11.5 feet and this is the minimum height wall that should be required as mitigation for any noise shielding associated with truck loading/unloading operations. Please revise the analysis accordingly.

4.12-36, 2nd Paragraph: The text states, “As the nearest noise-sensitive uses are located over 300 feet away, it is anticipated that the amplified noise would not be audible and the impact would be less than significant.”

This 300-foot distance is only the length of a football field and while the impact may be less than significant, the amplified sound would certainly be “audible” above the background. Please revise the statement accordingly.

Page 4.12-36, 3rd Paragraph: The text states, “It is anticipated that noise from use at the North Community Park may be sporadically heard at the patios and balconies of the Newport Crest condominiums when traffic volumes on Bluff Road are relatively low because the character of park noise is different than vehicular noise. It is concluded that noise from activities at the North Community Park would not cause disturbance or annoyance at the nearest noise sensitive receptors, and no mitigation is required.”

As noted, on-site noise will be created by both the traffic, the use of the park, and other stationary uses. However, while these noise sources are all additive at the receptor locations, the analysis fails to provide the noise associated with the sum total of these sources, so understates the impacts at the receptor locations.

Page 35, 3rd Paragraph: As above from the text, “It is noted that traffic noise impacts from Bluff Road would be above 60 dBA Leq, usually overshadowing noise related to park activities to these homes.” So again, the actual noise is underestimated because a sum of the sources is not disclosed.

Page 4.12-37, 5th Paragraph: The text notes that oilfield operations, including the use of heavy equipment, trucks, and drilling equipment, could occur at a distance of about 250 feet to the existing residents and 200 feet to the nearest future noise-sensitive receptors. The text goes on to note that drilling would take place 24-hours a day when it occurs. This is really no different than construction except that there are no time limitations on the drilling as there are on construction.

The mitigation for construction of the project requires the use of sound walls when this construction is to occur within 300 feet of any residents if they are to be bothered for just 20 days during regular working hours. Because oilfield operations would be closer than this 300-foot distance to sensitive receptors and could go on 24-hours per day, the near off- and on-site residents also deserve sound walls, or more, as mitigation.

Page 4.12-38, 3rd Paragraph: The text notes “The drilling of wells requires some periods of 24-hour activity. Drilling noise, consisting principally of diesel engines and tool maneuvering, could occur during the nighttime for periods up to five consecutive days. Without noise reduction, intermittent noise levels at receptors 200 feet away could be 75 dBA, although it is likely that the source to receptor distance would be greater. MM 4.12-11 would be incorporated into the Project to use noise reduction strategies to minimize drilling noise. With the implementation of MM 4.12-11 and the consideration of the limited noise generation time, the impact would be less than significant.”

While it may be subject to DOG requirements, and although it is operational noise, this drilling still uses heavy construction equipment and is still subject to the City Noise Ordinance for construction activities. Because these “construction operations” cannot be maintained to those construction hours deemed acceptable by the City, the impact remains significant.

Mitigation MM 4.12-11 states, “Prior to the approval of a permit by the California Department of Conservation, Department of Oil, Gas, and Geothermal Resources (DOGGR) for the drilling of replacement oil wells in the Consolidated Oil Facility, the Applicant shall provide to the City of Newport Beach descriptions of the noise reduction methods to be used to minimize drilling activity noise. These methods may include, as feasible, but not be limited to (1) use of electric power in place of internal combustion engines, and (2) acoustical blankets or similar shielding around elevated engines on drill rigs.”

None of these measures limit this drilling to the City’s requisite hours for construction so even with the inclusion of the mitigation, the impact remains significant.

Page 4.12-39, 3rd Paragraph: The text notes that the project is not located within 2 miles of any private air strip. However, the heliport located at Hoag Memorial Hospital is well within this distance and qualifies as a private air strip, and the analysis has failed to address this potential noise impact on the proposed residents. (It is of interest that the Hoag Hospital heliport is addressed in the Hazards and Hazardous Materials analysis on Page 4.5-16 which puts it a ½ mile from the project site.) Please address this potential impact and suggest mitigation as appropriate.

Page 4.12-41, 8th Paragraph: The 25-foot distance is based on the proximity of the construction equipment to the “residence” without properly defining the “residence,” (i.e., the property line or the physical structure).

The text notes that some residents are located at a distance of just 5 feet from the project site. The mitigation calls for the placement of temporary sound walls in sensitive residential areas. Obviously it then becomes impossible for an equipment operator to see the residential structure, or if any portion of the equipment is within 25 feet of the structure. As such, the mitigation is unrealistic and unenforceable. All mitigations specifying distance must be based on the distance to the project site’s property line and not distances to actual structures and this must be made clear in the analysis.

Page 4.12-42, 3rd Paragraph: The measure would also reduce nuisance construction noise for these residents. The mitigation should be amended requiring that those residents that want the sound-rated window and door assemblies be provided with such and reimbursed for their costs prior to the issuance of any grading permits.

Page 4.12-33, 3rd Paragraph: As noted in various portions of the analysis, the wall must be high enough to block the line of sight from the noise source and an 11.5-foot wall

is required to meet this objective with heavy truck exhaust stacks. Please revise the mitigation accordingly.

APPENDIX I, NOISE

General Comment: Vehicle noise is extremely sensitive to the ratio of automobiles, medium trucks, and heavy trucks. Each medium truck is equivalent to about 10 autos whereas each heavy truck is equivalent to about 36 autos. In all cases the Applicant, without explanation, uses a ratio of 98% autos, 1% medium trucks, and 1% heavy trucks. However, the EMFAC model used in the CalEEMod model, as used in the Air Quality analysis, notes that Orange County includes approximately 94.36% autos, 4.49 percent medium trucks and 1.15% heavy trucks. As such, the Applicant has underestimated the ambient and future noise from vehicle traffic. Furthermore, the vehicle ratio for West Pacific Coast Highway should be based on data included in the Caltrans publication, *2010 Annual Average Daily Truck Traffic on The California State Highway System*. Please revise the analysis accordingly.

General Comment: Vehicle noise is extremely sensitive to the time of day as the evening and night impose penalties on the noise created during those portions of the day. The Applicant, without explanation, uses a ratio of 80% during the day, 7% during the evening and 13% at night. However, the EMFAC model used in the CalEEMod model, as used in the Air Quality analysis, notes that Orange County includes approximately 77.50% during the day, 10.77% during the evening, and 11.73% at night. These values will change the calculated CNEL values and the analysis should be revised accordingly.

SECTION 4.5 HAZARDS AND HAZARDOUS MATERIALS

Section 4.5-20, 2nd Paragraph: The text states, “As with all remediation projects, the total remediation volumes can vary substantially when actual removals begin; thus, contingency amounts were included in the estimates.”

However, Page 4.9-88 of the traffic analysis notes, “The Project’s construction activities would include the consolidation of the existing oilfields and soil remediation in addition to the site development. Remediation is estimated to require approximately 900,000 cubic yards (cy) of cut and fill with an additional 1,500,000 cy of earthwork required in the development of the Project. Essentially, all grading would be balanced on site. An estimated 25,000 cy of export was assumed for removal of materials not suitable for retention on site which would require approximately 1,563 truckloads of material removal.”

This value of 25,000 cubic yards is then used in the transportation, air quality, and noise analyses. This value represents less than 2.8% of the total 900,000 cubic yard volume of material to be remediated and does not represent a reasonable scenario, let alone a “contingency amount.” Please provide a more realistic scenario in the analysis.

SECTION 4.6, BIOLOGICAL RESOURCES

Page 4.6-64, 4th Paragraph: The text states, “Indirect impacts are impacts related to disturbance from construction (such as noise, dust, and urban pollutants), and long-term use of the Project site and its effect on the adjacent habitat areas.” However, contrary to the text, there is no analysis of the construction impacts on sensitive species and construction impacts are never deemed as significant.

The sum extent of this analysis is included in the following quote taken from the document, “The non-transportation noise impacts from human activity in the residential, retail, resort inn, park, and trail areas would dissipate rapidly with distance and would not cause significant noise impacts to wildlife on the Project site open space and lowland areas. There would be no significant impact related to non-transportation activity; therefore, no mitigation would be required.”

Still, Page 4.6-86, 3rd, 4th, and 5th paragraphs require mitigation for construction noise impacts on sensitive habitat. Under CEQA, no mitigation can be required unless the impact is deemed as significant. The biological assessment is deficient in that it did not delineate the significance criteria for sensitive species (they do exist) or do a proper analysis to determine if the impacts of construction are significant prior to requiring mitigation.

Furthermore, while the text states that “dust and urban pollutants” could create significant impacts, the impacts of dust and urban airborne pollutants on sensitive species are neither addressed in the Biological Resources or the Air Quality analyses. Please supply the missing analysis.

Environmental Consulting Services

BACKGROUND

Derived from the two words, “synectic” meaning a theory or system of problem-stating and problem-solution based on creative thinking within a carefully selected small group of individuals of diverse personality and areas of specialization and “ecology” dealing with the interrelationship of man and the environment, Synectecology was established in 1994 to answer the call for personalized service at an economical rate. The company specializes in air quality and noise assessments, with emphasis on CEQA and NEPA compliance.

The firm's principal and founder, Todd Brody, has 32 years of experience in the environmental consulting field in Southern California. His broad background includes project management, air emissions analysis and modeling, noise analysis, traffic analysis, and environmental site assessments and remediation programs for toxic and hazardous wastes. Projects have been performed for both the public and private sector including the military, the Corps of Engineers, various state and local governmental agencies, and planned unit developers.

His background in the preparation of CEQA and NEPA documentation is extensive. He routinely performs air quality, noise, and to limited extent traffic and hazardous materials assessments for EIR, EIS, EA, and Negative Declaration documents and has prepared well over 600 such documents to date. He was instrumental in the preparation of the South Coast Air Quality Management District's 1993 *CEQA Air Quality Handbook*, providing methodology used in the determination of volatile organic compound emissions from the application of architectural coatings. This methodology has been carried over and used in the URBEMIS2002 and subsequent URBEMIS7 computer models distributed by the SCAQMD.

SERVICES AND CAPABILITIES

- X Initial Studies
- X Focused Studies
- X Mitigated Negative Declarations
- X Environmental Assessments (EAs)
- X Environmental Impact Reports (EIRs)
- X Environmental Impact Statements (EISs)
- X Joint EIR/EISs
- X Adequacy and Due Diligence Reviews

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EDUCATION

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SUMMARY OF PROFESSIONAL BACKGROUND

Mr. Brody is a Senior Environmental Scientist/Project Manager for both CEQA and NEPA documents including the preparation of specialized technical analyses for air emissions, noise, and traffic analyses, and environmental site assessments for toxic and hazardous wastes. In his 32 years of experience, he has performed projects for private and public sectors (local, state, and federal), and the military. His expertise also includes the preparation of proposals, qualifications packages, brochures, and various forms. As Project Manager he has been responsible for client, and agency contacts, and for management of technical and cost controls of subcontractor and in-house staff efforts.

RANGE OF EXPERTISE

Mr. Brody has served as Project Manager on CEQA and NEPA documentation for projects for military base operations improvements, container tank farm modifications, and air quality and noise elements of General Plans, and commercial and industrial development.

He has managed the preparation of and been responsible for air quality, noise, and limited traffic CEQA and NEPA assessments. Over the last 24 years, Mr. Brody has prepared these assessments for well over 600 projects including, but not limited to, recreational facilities, roadway improvements, water reservoir and water pipeline projects, natural gas pipeline projects, landfills, hazardous waste treatment facilities and waste residuals repositories, waste transfer and minimization stations, geothermal projects, marine terminal facilities, mining operations, beach erosion control projects, port and harbor improvement projects, military base BRAC closure actions, and military facility improvement projects. Mr. Brody has also prepared air quality, noise, and traffic assessments for a number of General Plans, EIRs for Master Plans, General Plans, and Specific Plans, and for city planning elements of Master and General Plans for a range of industrial, commercial, residential, and recreational developments.

Mr. Brody has also managed and performed hazardous materials assessments and remediation. As Project Manager, he has been responsible for all phases of the work including Phase I, II, and III site investigations and remediation actions, all agency contacts, design of sampling and remediation plans, oversight of drilling and excavation activities, and preparation of all initial, interim, and final reports. He has also designed and implemented numerous soil gas and methane monitoring studies for both the military and private industry.

Mr. Brody is current on various air and noise computer models, has implemented changes to improve the efficiency of some of these models, and has programmed specialized models when no commercially available software was available. Air quality analysis includes the use of EMFAC2007, BURDEN2007, URBEMIS2007, CALINE4, DTIM, MAAQI, and EPA SCREEN, as well as AP-42, "A Compilation of Air Pollutant Emission Factors," distributed by the EPA. Mr.

Brody has written air quality models to determine air emissions for both construction and project occupancy. He developed methodology for determining emissions from paint and architectural coatings, which was ultimately adopted into the South Coast Air Quality Management District's *CEQA Air Quality Handbook for Preparing Environmental Impact Reports* (released April 1993) as well as the URBEMIS7, URBEMIS2002, and URBEMIS2007 computer models and was directly responsible for many revisions to the *Handbook*. He has worked with the SCAQMD in the preparation of the new "*Handbook*" as well as various other District projects. He has prepared SCAQMD Permits to Construct and Permits to Operate for various Corps of Engineers projects.

He performs noise analyses using on-site noise measurements, computer models, and literature review. He is current on the both the Federal Highway Administration (FHWA) and Sound32 noise models, which uses noise profiles updated for the California area (CALVENO version) and has had the FHWA version revised to his specifications for direct readout of both CNEL and Ldn noise levels. Additionally, he has written noise propagation models in MathCAD and Excel when no commercially distributed models were available.

EXAMPLES OF AIR QUALITY AND/OR NOISE ANALYSES FOR CEQA PROJECTS INVOLVING RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LAND USES

Cities of Anaheim, Arcadia, Dana Point, Downey, Fontana, Indio, Perris, and Rancho Cucamonga General Plan Updates and/or General Plan Update EIRs.

Riverside County General Plan Noise Element Update.

EIR for the Glen Helen Specific Plan including mixed-use development and recreational areas

Cities of Chino Hills, Yorba Linda, Irvine, Carlsbad, Hermosa Beach, and Santa Ana on-call environmental services.

Air Quality and noise assessments for 100's of public and private schools (including stadiums) in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties.

EIRs and EIR/EISs for many General and Specific Plan areas and planned unit developments including Coyote Hills, Glen Helen, Bolsa Chica, Summit Valley Ranch, Jess Ranch, East Lake, Riverglen, Hidden River, Playa Vista, and Woodland Heights, La Sierra, the City of Burbank, and Yosemite Lakes.

Development and Reuse of Norton AFB for the City of San Bernardino.

Santa Anita Entertainment Center for the City of Arcadia.

Waste transfer & minimization stations and landfills including the EIRs for MRFs in Pomona, Fontana, and Moreno Valley, a Mitigated Negative Declaration for the City of Perris MRF, and the Sunshine Canyon, Cactus Road, and Campo Landfill EIRs.

Hidden Valley Resources Hazardous Waste Residuals Repository EIR/EIS for the County of San Bernardino.

Many EIRs, EAs, and focused studies for park and recreational area development including Lake Elsinore Stadium, Hansen Dam, Frank G. Bonelli Park, Sepulveda Basin Arts Park, Dana Hills Park, Del Obispo Park, Glendale skateboard facility, and Royal Rangers Campground.

Many reservoirs, pumping stations, and wells including the EIR/EA for the Central Pool Augmentation and Water Quality Project in Orange and Riverside Counties, an exploratory well in the City of Huntington Beach, the 3 million gallon Top-of-the-World Reservoir in the City of Laguna Beach, the joint construction of domestic water transition lines through the Cities of San Clemente and Dana Point for the South Coast and Tri-Cities Water Districts, the installation of a groundwater well and conveyance system for the City of Indio, the construction of wells, associated piping and treatment facility for the City of Beverly Hills, and the and the construction of a new pipeline with roadway realignment for the Irvine Ranch Water District.

SEIR for the New NFL Stadium in the City of Industry.

EIR for the City of Industry Intermodal facility.

EIR for the Irwindale Raceway for the City of Irwindale.

EIRs for the Leasing of the Unocal Marine Terminal at Davis Point in San Pablo Bay, the Chevron Long Wharf in Point Richmond, and the Shell Marine Terminal in Martinez for the California State Lands Commission.

Deep Draft Navigation Improvements for the Los Angeles and Long Beach Harbors EIR/EIS for the City of Los Angeles and the Corps of Engineers.

EIRs for the Hazardous Waste Management Plan and the Airport Corridor Specific Plan for the City of Palmdale.

Soledad Canyon Mining Operation EIR for Transit Mixed Concrete.